

SPECIFICATION NOTE: This combined metric and imperial specification is written in accordance with Construction Specifications Canada (CSC) Three-Part Section Format. Square brackets [] indicate choice, alternatives, data required or need for the specifier to make a decision.

PART 1- GENERAL

WORK IN-CLUDED

Provide labour, materials and other services to complete the fabrication and installation of the projected and casement windows, including all materials and components required for the operation of any window units included, in the manner, direction and performance shown on the shop drawings and specified herein.

QUALITY ASSURANCE

Drawings and specification of this section are based on casement (T.H.P.O.) windows manufactured by Cahill Commercial. Whenever alternative products are offered, submit supporting technical literature, samples, drawings and performance data for comparison 1 day prior to tender closing date. Work of this trade shall be executed by a company with a minimum of 5 years proven first class experience in this type of work, having adequate equipment and skilled personnel to expediently complete the job in an efficient and workmanlike manner.

SHOP DRAWINGS

All work of this section shall be executed in strict accordance with approved shop drawings. These shall be complete details of all conditions, construction and interfacing.

SAMPLES

Submit one representative model and one cut-away corner sample of each type aluminum window.

TEST REPORTS

Submit test reports from independent testing laboratories indicating that windows meet or exceed the performance requirements of Canadian Standards Association [CAN/CSA-A440-00 (Classification A3, B7, C5, F20, S2)] And [AAMA/WDMA/CSA (Classification 101/I.S.2/A440-08)]

Condensation resistance

For awning (T.H.P.O.) windows is $I_f = 63, I_g = 69$ against requirements of CAN/CSA 4400-00

MAINTENANCE DATA

Provide maintenance data for maintenance and cleaning in accordance with instructions under General Conditions.

WARRANTY

The work of this division shall be guaranteed against defects of materials and workmanship for a period of 1 year following the date of delivery.

PROTECTION

Protect adjacent surfaces from damage resulting from work of this trade.

PART2-PRODUCTS

MATERIALS

Aluminum awning (T.H.P.O.) window series 120 with thermal break to CAN/CSA-A440-00 Classification A3, B7,C5,F20,S2 and I=63, when combined with series CA114RS fixed framing as manufactured by Cahill Commercial.

Sash, frame and screen members Extruded aluminum alloy 6063- T5, minimum 1.6mm (0.062") wall thickness.

Thermal break Extruded virgin polyvinylchloride. Provide complete metal to metal separation between the frame and sash members. Do not use connecting screws, clips or other devices which would bridge the frame or sash thermal break.

Insect screens [optional] Standard duty extruded aluminum frames with 18 x 14 fiberglass screen cloth. Field applied screens and secure with turn-clip type fixing to permit easy removal.

Sealant

Tremco A440 butyl tape (1.5mm x 25.4mm) and sealant [1-part silicone] [1-part polyurethane] to CGSB L] and suitable for job conditions, L-I color as selected.

Glass and glazing materials.

Factory sealed double glazed unit 24mm (15/16") overall thickness to CAN/CGSB-12.8-M, glazed in accordance with manufacturer's instructions. Glass thickness sized to National Building Code requirements. Provide sash frames which will permit glass replacement without the use of special tools.

Weather stripping

Extruded flexible EPDM to ASTM 0-2000. Double weather-strip window units at all sash perimeters. Install all weather-stripping in specially extruded ports and secure to prevent shrinkage or movement.

Fasteners

Non-magnetic, stain and corrosion resistant stainless steel to ASTM E-149. Source Quality Control Windows supplied under this specification shall have been tested by an independent testing agency indicating compliance

with the performance requirements of Canadian Standards Association CAN/CSA-A440-00

FABRICATION

GENERAL

Fabricate window frame and sash, each using two extruded components joined by means of a thermal break. Assemble all joints in main frame and sash, neatly, in weather tight manner and secure by means of screws anchored into integral screw ports. Debur and make smooth all sharp edges and corners. Provide hollow extruded sections for all rail sash members. Provide sill weep system which will facilitate drainage of water accumulating in sill area while preventing passage of air, dirt and insects to interior. Fabricate entire window in a manner that will allow easy replacement of any defective, damaged or worn components, hardware or weather-stripping.

OPERATION

Projected Awning (T.H.P.O.) Windows:
Position ventilators in series CA114RS fixed frame to provide direction of opening specified, free and smooth operation, without binding or sticking against main frame members. Design ventilators opening as specified.

FINISH

Comply with Aluminum Association Designation System for Aluminum Finishes. Provide Clear anodized finish, designated [AA-A41 class I 18um (.0007")] [AA-A31 class 2 10um (.0004")] finish

OR

Provide AA-A44 [standard bronze] [light bronze] [black] Alumanodic II electrolytic anodized class I 18um (.0007") finish.

OR

Provide a factory applied thermosetting fluoropolymer coating in accordance with American Architectural Manufacturers Association specification AAMA 605.2, to all exposed aluminum sections. Colour shall match... (Specifier provides color reference number).

HARDWARE

Projected Windows:
[Equip each unit with two four bar (Stainless Steel) friction arm hinges; two claw locking handles and keepers; one roto operator by Truth Hardware.] [Under screen stay bar claw guide and lock.] Finish to be selected from manufacturer's standard finishes.

PART 3 - EXECUTION

PREPARATION

Protect adjacent surfaces from damage resulting from work under this specification.

INSTALLATION

Windows shall be installed, glazed and adjusted by personnel having a minimum 5 years proven experience and in accordance with the manufacturer's instructions and approved shop drawings. All items in this section shall be set in their correct location and shall be set level, square plumb and at proper elevations and alignment with other work. Do not exceed 3mm in 3050mm (1/8" in 10'-0") variation from plumb and level.

Seal joints between frame members and window openings with sealant to provide weather-tight seal at outside and air vapour seal at inside.

PROTECTION AND CLEANING

Aluminum shall be isolated from concrete, mortar, plaster and dissimilar metals with bituminous paint or epoxy solution.

Framing shall be protected from other building materials during and after installation until acceptance by the General Contractor. Thereafter, it shall be the responsibility of the General Contractor to maintain protection and provide final cleaning.